

I. Highlights - - - - 2000

Growth Indicators are mixed in 1999

After four years of growth boom in King County, there are now mixed signals regarding the actual current growth rate:

- Population increased less than one percent each of the last two years.
- The heated pace of single family house sales in Seattle and the Eastside has begun to slow.
- Job growth slowed but still exceeded 32,000 new jobs in 1999 after several years of 40,000 to 50,000 jobs per year.
- Immigration from overseas continued to bring 10,000 people per year into King County.
- Housing unit growth continued at the rapid pace set in the mid-1990s as builders attempted to catch up with the demand placed by earlier economic growth.

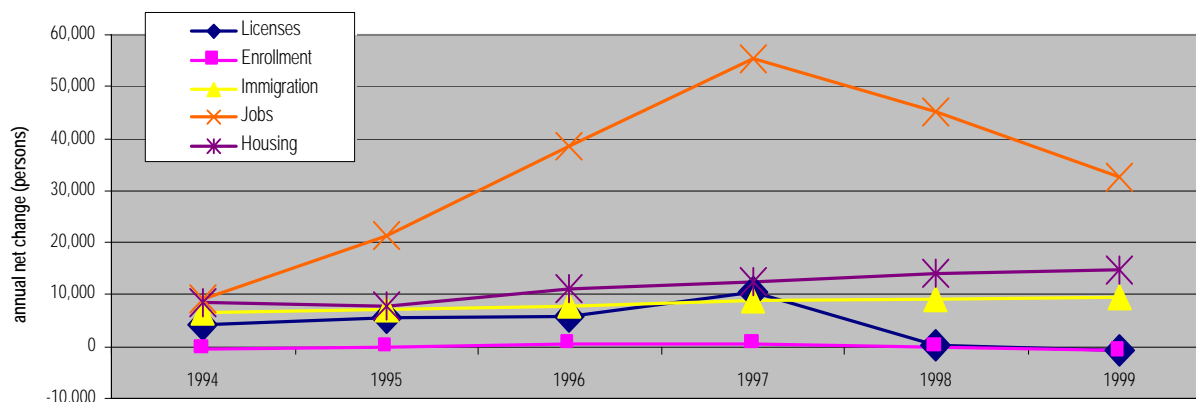
With this confusing pattern of ups and downs, fully ten years from the certainty of decennial (1990) Census data, it is difficult to know how much the population is growing.

Indicators of slowing growth

Population growth continued to slow down in King County during 1999. The Washington State Office of Financial Management (OFM) has estimated King County's April 1, 2000 population at 1,685,600, up only 8,600 from 1999 and less than 20,000 from 1998. The annual increase is less than the excess of births over deaths in the County during 1999. Therefore more people are moving out of the County than moving in. School enrollment and driver license data point to this likely state of slowdown in the County's population. The population growth rate has been slowing since 1997, the last year of rapid population growth. In each of the last three years, annual population growth has been less than one percent.

Three indicators show a slowing population growth rate: school enrollments, drivers licenses, and U S Census Bureau estimates. Each of these points to net outmigration from King County in the last two years. Data available to the Washington State OFM point to a declining growth rate in Washington State and King County in particular. Enrollments in public and private elementary schools have decreased one-half percent in each of the last two years. Drivers license data from other states find that more Washingtonians are moving elsewhere than people from other states moving here. And U S Census Bureau estimates based on tax data show a declining rate of growth. All these figures are Statewide but apply in King County as well. Finally, recent house sales data from the Northwest Multiple Listing Service indicate that the real estate boom is cooling off in numbers of sales although not in real estate price increases.

Annual Change in Population Indicators



Indicators of continuing rapid growth

On the other hand, three indicators continue to show strong King County growth: international immigration, job growth, and housing construction.

Immigration from other countries is an important component of King County population change. Only limited data are available on a county basis, but metropolitan area data from the U S Immigration and Naturalization Service shows an average of 10,000 to 12,000 persons per year moving from overseas into the Puget Sound area. Data available to OFM indicate that most of these immigrants reside in King County. The annual King County numbers have remained constant at around 10,000 for several years. This means that a large proportion of King County's recent total growth has come from international migration as opposed to migration from other parts of the U S. In the last two years, domestic migration must have been strongly negative, i.e., many more people are moving out of King County than moving in.

Job growth has also begun to slow down, but it is still at an historically high rate and is outpacing population growth. During 1999, about 32,000 new jobs were added, an increase of more than three percent. This rate compares with the 40,000 jobs per year during the mid – 1990s and more than 40,000 added jobs per year during the late 1980s. The current growth rate represents a combination of two components of the King County economy: decline in aerospace and continued increase in other sectors. Aerospace, consisting of the Boeing Company and associated firms, typically expands and contracts in a nine- to ten-year cycle of boom and bust. As in the early 1980s and early 1990s, Boeing is now reducing its employment; the aerospace sector, dominated by Boeing, has declined from 67,000 jobs in 1998 to 55,000 in April 2000. Usually these reductions drag down the remainder of the Puget Sound economy because of two factors: the loss of high-paying jobs in aerospace, and the size of the Boeing Company. With eight percent of the metro area's total jobs, a 20 percent drop in Boeing employment represents a large share of total jobs in the metro area. This year, for the first time, the economy is withstanding an aerospace decline without major impact to rest of the economy.

Several factors explain the more favorable situation this decade: manufacturing other than aerospace, and business services including computer software, are continuing to grow while aerospace shrinks. The size of the county's total economy is huge, with a million jobs – King is the ninth largest county in the United States in terms of total employment. The wages (including stock options) paid by software companies are so high, they have sustained the overall income in the region. And the national economy is doing very well, with the lowest unemployment in 30 years, providing a healthy market for products of King County businesses. King County has never before come through a period of Boeing layoffs so unscathed. It is too early to say we have learned how to flatten the business cycle, but at least the severity of the aerospace 10-year downturn is much less this time.

In addition, retail growth driven by the job and income growth has continued at a healthy pace. Retail has benefited from big gains in the stock market as well as wage growth. New retail construction has flourished in downtown Seattle and University Village, Redmond, Bellevue, Tukwila, Renton and other suburban downtowns. Further, an unusually low office vacancy rate has stimulated new office construction throughout King County after several years of little new office development.

Residential construction is the indicator that showed the strongest growth in 1999. The number of new residential units, detailed in the King County Cities chapter, set a decade record at more than 14,600 new houses and apartment units authorized during 1999. This amount is a three percent increase over 1998 and the largest number of new units since 16,900 new units in 1990. What's more, the continued housing boom is broad-based with at least four jurisdictions contributing more than 1,000 new housing units. Seattle permitted 5,200 new housing units – more than in any year in recent memory. Kent and Bellevue each issued more than 1,100 new permits. Unincorporated communities in both East and South King County received large numbers of new houses. Residential construction is an important contributor both to the economy in terms of high-paying construction jobs, and to population growth with the new housing made available.

Incomes rise rapidly – for some King County residents

Ten years after the 1990 Census benchmark, it is difficult to measure current income. Several organizations attempt to estimate the median household income of King County or Puget Sound residents. The AGR has relied on estimates prepared by a private firm, Strategic Mapping, Inc. (Donnelley), whose 1998 estimate, \$47,700, was the lowest available. This year's Annual Growth Report switches to the federal Housing and Urban Development department (HUD) estimate, a higher series. HUD's estimate, \$53,200 in 1999, is up six percent from 1998 but fully 11 percent higher than the \$47,700 reported from Donnelley in the 1999 AGR. More reliable data from the 2000 Census will not become available until mid – 2002.

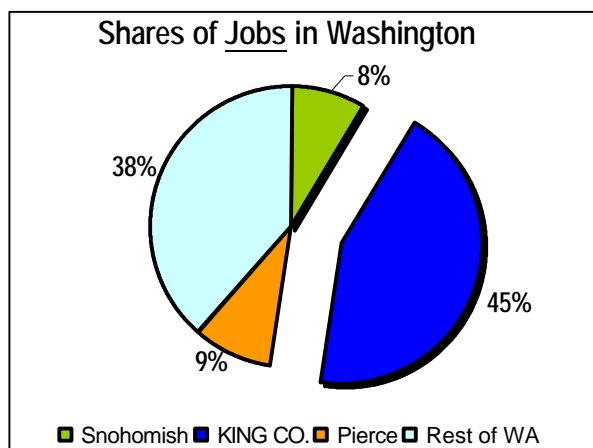
The Washington State Employment Security Department reports average (not the more meaningful median) wages paid to employees covered by unemployment insurance. The average King County wage for 1999 was approximately \$46,000, up a remarkable 11.6 percent from 1998. However, it is instructive to separate the approximately 25,000 software employees in King County from the remaining 1,080,000 workers. This two percent of all King County workers, at Microsoft and 300 other packaged-software companies, took home 19 percent of the County's total payroll, nearly \$10 billion including stock options. That works out to an average of \$400,000 apiece. The remaining 98 percent of workers average \$38,000, up a still-healthy 5.6 percent from 1998.

The significant overall income growth in software and other sectors has propelled King County into eighth place among all 3,100 counties in the United States in total payroll paid during 1998. Measured at \$41 billion by the Census Bureau, King County's total business payroll exceeded that of 26 states, including Oregon which has twice as many people as King County. The growth of payroll was second-highest of all large counties in the U S, just behind Clark County (Las Vegas), Nevada. Among other issues raised by such large numbers is that of disparity of wealth and income between King County and the other parts of Washington State outside the Puget Sound region. In 1998, more than 52% of wages paid in Washington were in King County, somewhat lopsided compared to the 29% of the state's population. Some of that discrepancy reflects high tech jobs in King County, which are detailed in a table on page 75. Because of the high tech wages, this period is an historical first in that jobs and income continue growing despite Boeing decline.

Growth of jobs and population in King and adjoining counties

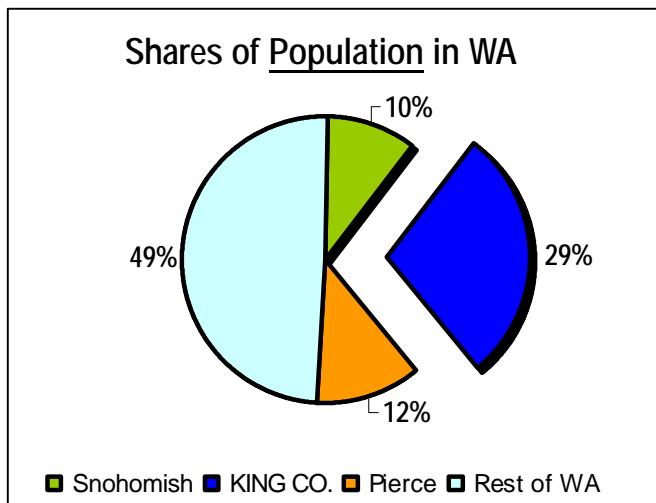
Planning policies and current issue discussions speak of balancing job growth and population or housing growth in the Puget Sound region. This issue is subject to over-simplification, but is actually complex and many-faceted. Some facts:

1. King County, the economic engine of Washington State, had 45 percent of Washington jobs in 1999, but only 29 percent of the population and 30 percent of the housing units. Although it contains only three percent of the state's land area, King County is large and diverse, with many different job centers. Manufacturing and warehousing dominate in South King County. High tech industries are found mostly in Seattle and the Eastside. Services and retail are located all around the county.



2. King County has garnered almost two-thirds of Washington State job growth since 1995. Job growth within the county during the four years from 1995 to 1999 was a stunning 172,000, or 18% over the period. This was 65 percent of the entire State's increase in jobs during the same period. Most of the remaining job growth went to adjoining Snohomish and Pierce Counties, leaving only 15 percent in the remaining 36 counties.

3. In contrast, King County gained only one-fifth of the State's population and housing growth from 1995 to 1999. This amount of growth – more than 36,000 housing units -- is in line with forecasts but seems slow compared to the job growth.
4. Pierce and Snohomish Counties each have less than ten percent of the state's jobs, but more than ten percent of the state's population. Although Pierce is defined as a one-county metropolitan area, it is less than half of King County's size. Larger households and military populations contribute to the larger share of population in these counties.



5. Pierce and Snohomish may have gained only modest job numbers in the 1990s, but together they built more new housing than King County. These two counties increasingly act as bedroom communities for King County job centers. So it is useful to examine the three county region as a unit.
6. The three Puget Sound counties together have 62 percent of the state's jobs and half its population and housing stock. The three have an even larger share of wages paid in the state.
7. In 1999, King County had 1.6 jobs for every housing unit, while the average household in the County has 1.4 workers. In the three counties together, the ratio is a more balanced 1.3 jobs per housing unit, comparable to the nationwide ratio.
8. The Puget Sound region has added almost three times as many jobs (+223,000) since 1995 as housing units (+82,000). In fact, during that period the region added more jobs than people.
9. More than 55% of the new housing units in King County were multifamily, while the vast majority in the other Puget Sound counties were single family.

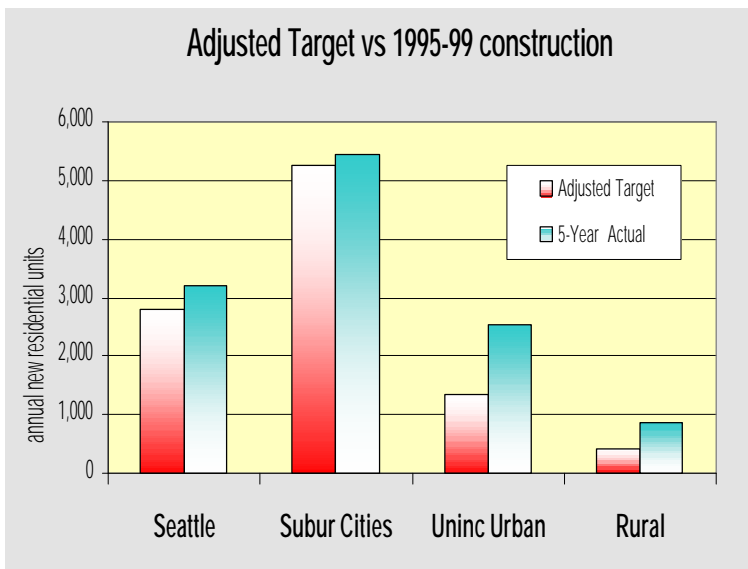
In interpreting all this information, it is important to remember the cyclical nature of the Puget Sound economy. One year or even four years is a short part of the business cycle. During a different four year period, the region or King County may add more housing than jobs. There have even been years of net job losses, such as 1991. There is rough equilibrium over the ten-year Puget Sound cycle that is not apparent during the current growth boom. Finally, although King County's housing growth may not seem to balance job growth in the short term, the housing growth rate does match growth targets set in 1994 – about 10,000 added housing units each year. Even larger numbers of housing units were built in 1998 and 1999. It's not so much a matter of slow housing growth as it is rapid job growth. To the extent that housing growth lags, it is affordable housing for people with lower-paying jobs that comes up short. As job creation slows down in coming years, housing numbers should start to catch up.

Growth in most areas of King County is outpacing Growth Targets

The Countywide Planning Policies (CPPs), adopted to implement the State Growth Management Act in 1994, set "growth targets" for households and jobs. Each target is the amount of growth to be accommodated by a jurisdiction during the 20-year Growth Management planning period. The residential targets were expressed as a range of households for each jurisdiction to accommodate between 1992 and 2012. Cities with designated Urban Centers including Seattle, Bellevue, Redmond, Renton, Tukwila, SeaTac, Kent and Federal Way established high target numbers to encourage growth. Growth target ranges are displayed on page 63.

In the unincorporated King County jurisdiction, Urban targets were set lower than past trends would indicate, in order to encourage growth within cities generally, and designated Urban Centers in particular. The unincorporated Urban target was set at 38,000 new households over the 20 years, which is only 19% of Countywide growth as opposed to nearly half under old trends. The Rural target was set at less than four percent of Countywide growth, far below the 15% typical in the '80s. This year's AGR reports on our progress after five years of development following adoption of the CPPs.

Countywide new residential construction has averaged 23 percent greater than annualized targets would expect. The graph above compares five years of building permits to targeted shares of development in four subareas: Seattle; the Suburban Cities; unincorporated Urban; and Rural areas. Permits in Seattle, averaging more than 3,200 new units per year, exceed the annualized target. The 37 Suburban Cities collectively have permitted 5,400 new housing units, almost exactly the targeted share. Some of the success cities have had is within designated Urban Centers. However, individual cities differ markedly. The Eastside cities and Renton and Kent have been more successful than southwest King County cities in attracting recent growth.



The unincorporated Urban target was set at 1,900 units, a number actually achieved in 1995 but exceeded since then. Rapid growth has taken place, especially in Sammamish and Soos Creek. The largest targets were established in Soos Creek, Sammamish, and Federal Way, together more than half the unincorporated Urban target. See unincorporated targets on page 141. Several cities have incorporated since the CPPs were adopted in 1994. As new cities form and older cities annex territory, the targets have been adjusted from unincorporated Urban to cities, and will need continual further adjustment. When this adjustment is accounted for, the number of unincorporated permits significantly exceeds the adjusted targets. During the first three full years the CPPs have been in effect, more than one-fourth of the Urban unincorporated land area has become city, and so about 10,000 of the original 38,000 target will shift into incorporated jurisdictions. Calculated this way, the remaining unincorporated urban areas are already approaching their 20-year targets.

The Rural area target was set at less than four percent of Countywide growth, an average of under 400 units per year. In the years since the target was set, actual building construction in Rural and Resource designated areas has been two to three times this annualized average. As a percentage of Countywide construction, Rural activity remains small: less than eight percent of new housing units, and down to 5 % in 1999. This percentage is well below the 13 to 15 % of earlier decades, and far less than Rural growth in other Puget Sound counties. Nevertheless, in the five years 1995 - 1999, new housing construction is more than halfway (52 %) to the 20-year target of up to 8,200 units in Rural areas. Much of this growth is due to the large number of pre-existing lots in rural areas.

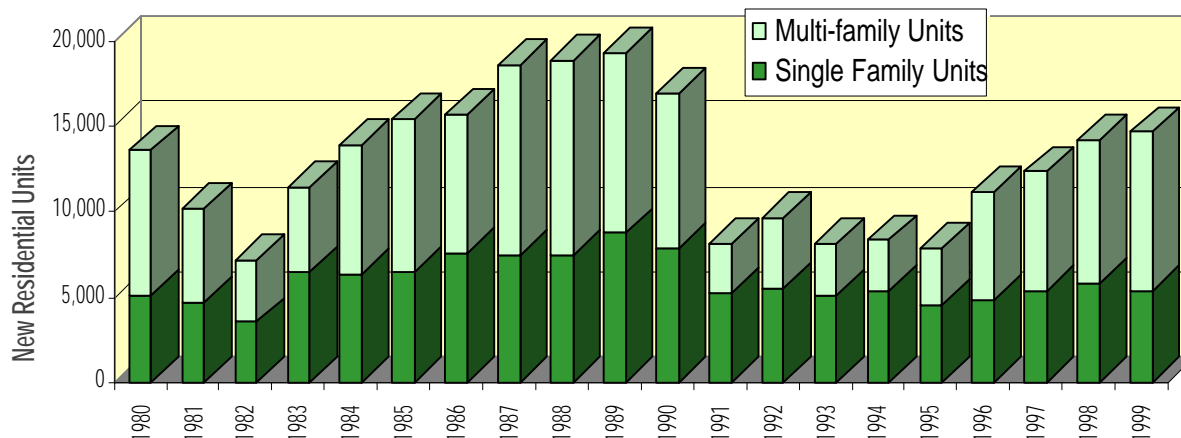
In comparing the actual growth to targets, it is important to remember the cyclical nature of Puget Sound growth. Recent permits have exceeded the annualized targets all over King County. In the next few years, slower growth may balance this rapid growth period and bring us back to the 20 – year forecasted trend.

Rate of residential construction continues to increase

Despite the slowing population, residential construction continued strongly in 1999, demonstrated by construction of more than 14,600 new residential units. Construction of single family homes was down slightly to 5,400 new houses and mobile homes. Permits for single family construction have stayed remarkably consistent each year since 1991, at about 5,000 new houses in King County. Roughly half of the new houses were issued in unincorporated areas, although many of these have since been incorporated into the City of Sammamish.

Multifamily construction is often much more volatile, responding to changes in the regional economy. This year, multifamily construction increased to about 9,200 new apartments and condominium units (triple the 1993-95 average). Condominium sales have increased significantly, and are now a large share of total home sales (around 20 percent) and construction (nearly 50 percent), in contrast to a few years ago when condos were a very small share of the market.

**Total New Residential Units Permitted
Single Family and Multifamily
1980 - 1999**



New residential construction largely focused in Seattle, Bellevue and Kent, and to a lesser extent Renton, Snoqualmie and Kirkland. Data from selected jurisdictions shows this healthy trend continuing at the same rate in the first quarter of 2000, with large numbers of new permits for multifamily buildings in Seattle and Bellevue. However, total new residential construction has still not returned to levels of the late 1980s, which approached 20,000 new units per year.

Residential growth focuses in cities and three unincorporated areas

More than three-fourths of the new construction in 1999 occurred within city limits, in marked contrast to trends of the 1970s and 1980s. Seattle received an amazing 36 percent of the County's new residential units, more than 5,200. The 37 Suburban Cities together permitted 5,900 new units, 40 percent of the Countywide total. The cities of Kent with 1,200, Bellevue with 1,100, Renton with 476 and Snoqualmie with 479 authorized the largest numbers of new units. Two-thirds of the new housing units in the cities were apartments and condominiums. Building permits by city are reported on pages 71-73.

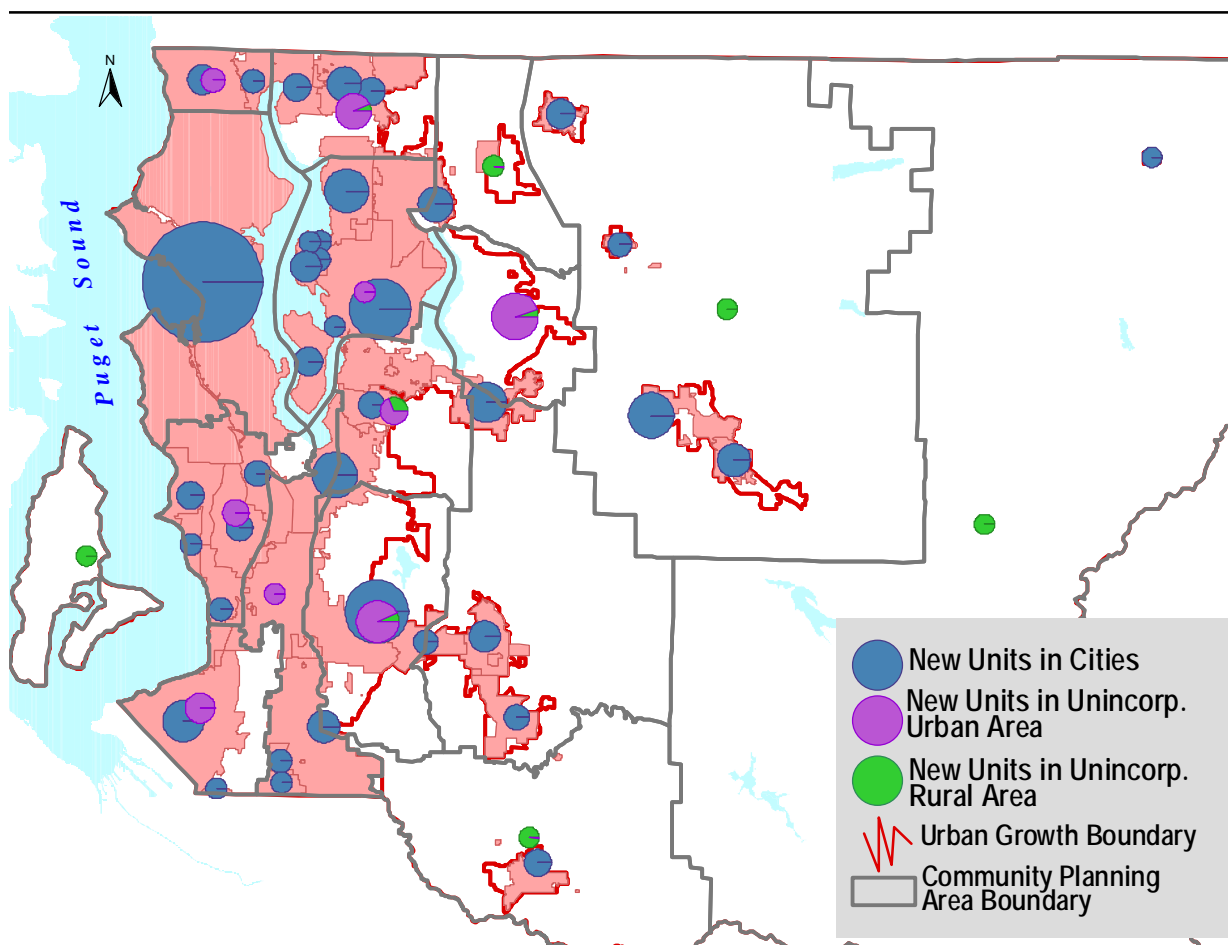
With 3,500 new units, unincorporated King County received 24 percent of Countywide new residential growth, a lower share than in earlier years. Three communities received the largest share of unincorporated growth: East Sammamish with 1,432 new housing units, Soos Creek with 604, and Northshore with 503. Urban portions of

unincorporated King County accounted for 2,778 new units, about 19 percent of the Countywide growth. In Rural and Resource areas, only 730 new units were permitted – about five percent of the Countywide total, and very close to the target. This number was down significantly from 1998. Preliminary data from 2000 hint that permit activity in both Urban and Rural areas will continue to decline this year.

Only 35 percent of the unincorporated permits were multifamily; many areas designated for multifamily development have annexed to cities in recent years. Building permits by unincorporated area are reported on pages 131-134.

During 1999, the number of lots recorded in formal plats increased 45 percent from 2,213 to 3209. The increase occurred in both unincorporated King County and in the cities. The Bear Creek planning area had the largest number, 529 new lots, followed by East Sammamish with 347. Among the cities, Snoqualmie ranked highest with 457 new lots, entirely within the Snoqualmie Ridge Master Planned Development.

1995 Through 1999 New Units by Urban and Rural Area



Short plat activity in unincorporated King County was down for both recordings and new applications, reflecting the decreasing unincorporated area within the Urban Growth boundary. In 1999, short plat recordings fell from 208 new lots to 134; new applications were received for 156 lots compared to 178 during 1998. The Northshore planning area had the highest number of recordings with 37 new lots, and East Sammamish led with applications for 36 lots. Short plat data are not available for King County cities.

Housing Prices Continue to Rise

During 1999, the cost of housing in King County continued to increase at historically high rates, although it is likely that 2000 will show some stabilization of housing prices.

From 1998 to 1999 the median price of a single family home rose from \$215,000 to \$235,000, a 9.3% increase. The previous year had seen an even steeper rise from \$185,000 to \$215,000, a 16.2% increase. Interest rates were fairly stable during this two year period. While these increases in value are good news for current home-owners, they have made it very difficult for first-time home buyers to enter the market. In 1999, a household earning the median income could afford a home costing about \$199,300. But the median-priced home cost nearly \$36,000 more than this.

Moving from the rental market to the housing market can be very discouraging in King County. The average renter earns only about 67% of median income. Even at 80% of median income, a three-person household earning \$45,000 could afford a home costing just \$135,000. But only 7% of homes in King County sold for that amount or less in 1999. Supposing they could find a house in this price range, the household would need at least \$12,000 in savings to cover a 5% down payment and closing costs.

Condominiums and townhomes provide a more affordable option for some households. However, at \$148,000, even the median-priced condo was out of reach for a typical household earning 80% of median income.

The rental market in King County is somewhat more accommodating. There is an adequate supply of rental units affordable to those earning 50% of median income or more. While average rents have been rising, the annual increase during the 1990's was about 3.9% per year, just slightly higher than inflation. The median rent for a two-bedroom one bath apartment was \$755 in 1999. At 50% of median income, a household of three could afford \$704.

For households below 50% of median income, even the rental market can be disheartening. For the 54,000 households in the County who earn 30% or less of the median income, there are virtually no affordable market-rate units available. A household supported by a full-time worker making \$7 or \$8 per hour would be in this income category. Only 5% of apartments rented for less than \$500 last year, and only 20% for less than \$600.

Homeless individuals in King County numbered about 6,000 in 1999. An individual or household seeking an apartment would typically need anywhere from \$1000 to \$2000 for first and last month's rent and a security deposit. Even with a decently-paying job, these move-in costs are a barrier for a homeless or transitional individual or family seeking housing, as well as for a young person starting out.

Traffic congestion is worsening while transit ridership grows slowly

According to the Federal Highway Administration, traffic in the Seattle area ranks between fourth and eighth most congested in the nation. The broadest measure of travel and traffic congestion is "vehicle miles traveled" (VMT), reported as Indicator # 12 in the Benchmarks Report. Congestion is worsening as more vehicles are being driven more miles. In the 1980s, VMT grew almost four times as fast as the population due to rapid job growth, more two-worker households, and increases in non-work related trips. Since 1990 VMT has grown more slowly, in line with population growth. Benchmark Indicator # 12 shows that percapita VMT has risen about 7 percent since 1990. Currently, it stands at 9,567 miles per year per capita. Rapid increases in volume of commercial and truck traffic have spearheaded this increase, as shown by Indicator # 44.

Other transportation indicators show that transit use has increased in the last two years, but it comprises at best a stable share of VMT. About 54 percent of 1999 travel in King County was by single-occupant vehicle, while transit share remained constant at 5.7% of all trips. According to the 1990 Census, almost 70 percent of commute trips were by single-occupant vehicle, while transit captured about 9 percent of commute trips.

Although transit travel is increasing – Metro Transit ridership increased two percent in 1999 – overall travel is probably increasing faster.

An interesting anomaly appears when one compares the increase in VMT in King County with the per capita consumption of automotive gasoline (Benchmark Indicator #11). While both vehicle miles traveled and diesel fuel consumption are up considerably, ordinary gasoline consumption per capita has declined during each of the last two years. Given the popularity of larger, less fuel-efficient vehicles (light trucks and sports utility vehicles), it is difficult to explain this as a function of more efficient vehicles using less gasoline. A more likely explanation is that the increase in vehicle miles traveled is due to the increase in commercial traffic, in commuter traffic from non-county residents, and in other pass-through traffic. Gasoline consumption has not increased proportionately because many of these vehicle owners purchase their gasoline outside of King County, or use diesel fuel.

Leading indicators reveal likely slowing of rapid growth

Before 1995, it was difficult to forecast residential development in specific communities of King County. Under a new program that began in January 1995, “Transportation Concurrency” certificates form a window into the near-future growth we can expect in unincorporated areas of King County. Before subdivisions or building permits can be filed, developers must secure a concurrency certificate from the King County Department of Transportation. Therefore, concurrency approvals are a good predictor of construction 4 or 5 years hence. Concurrency approvals are reported on page 130.

In five years, concurrency applications for more than 15,600 single family lots and 13,500 multifamily units have been approved in unincorporated King County. Some of these have already been absorbed into cities including Kent, Maple Valley and Kenmore. Nearly one-third of the 29,000 concurrency certificates issued since 1995 are now in the City of Sammamish, where completion of some of the housing units may be delayed. In 1999, concurrency applications slowed to 1,300 new single family lots (half in Soos Creek) and 770 new multifamily units (Federal Way and Soos Creek).

Concurrency approval is required for both single family subdivision and multifamily buildings. Following approval, subdivision applications are filed at the Department of Development and Environmental Services. Therefore they show anticipated development (construction in the next five years) in places like East Sammamish, Bear Creek, and Soos Creek. These 15,600 lots indicate a desire for continued development of single family residential homes near the edge of the Urban Growth boundary. They include three Urban Planned Developments (UPDs), large residential communities early in planning stages, on the Bear Creek Plateau and at Grand Ridge (now Issaquah Highlands in the City of Issaquah). They do not include another UPD, Snoqualmie Ridge, now under construction in the City of Snoqualmie.

In contrast to the long lead time for subdivisions, many of the multifamily buildings with concurrency certificates are already under construction. The 13,500 multifamily units in the concurrency pipeline represent significant interest in higher-density development in a suburban setting, in communities including East Sammamish, Soos Creek and Northshore. Unlike the single family dominance of the housing market a few years ago, these concurrency applications indicate market recognition of the need for affordable housing opportunities as King County jobs continue to grow. We do not have a comparable “leading indicator” for multifamily development in the cities of King County, but 1999 building permits as well as low vacancy rates indicate a strong market there, too.

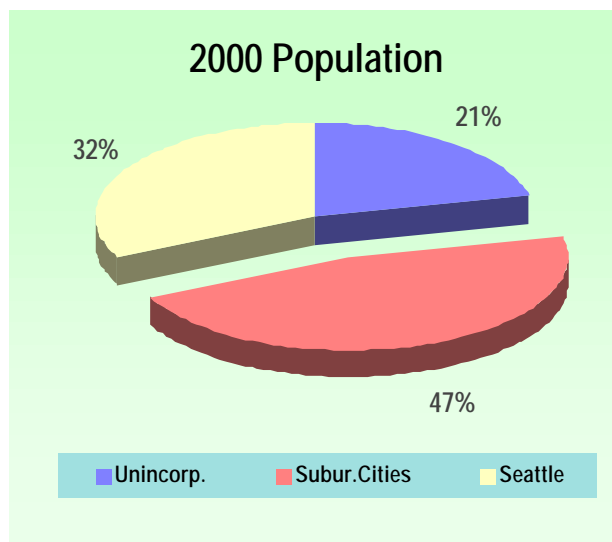
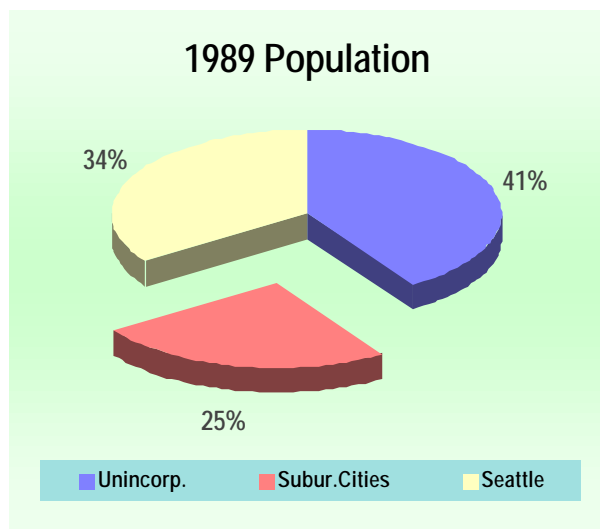
City of Sammamish Caps a Decade of Incorporations

Although King County as a whole is growing slowly, many of its cities are growing rapidly. The suburban cities are acquiring the majority of King County's growth, both through annexation and through new construction within their boundaries. In 1989, unincorporated King County had 590,000 people and the 28 suburban cities together had about 350,000. In the succeeding eleven years, ten new cities have formed with more than 250,000 people. Other cities have annexed about 72,000 of the existing unincorporated population. The 38 suburban cities (including Bellevue) now have more than 785,000 residents. By 2012, the entire Urban area, with 90% of the King County population, is planned to be within city limits.

The newest city is Sammamish which incorporated on August 31, 1999. The City's April 1, 2000 population was estimated at 30,800 and it is growing rapidly. Occupying more than 21 square miles east of Lake Sammamish, the City incorporates the wealthiest remaining community of unincorporated King County. The median house price in 1998 exceeded \$300,000, and median household income exceeded \$90,000.

Annexations accounted for a further shift of 4,300 persons into cities within the last year. Burien and Shoreline annexed small islands of unincorporated territory, each with about 2,000 residents. Auburn annexed part of the Lea Hill community with about 2,750 residents. Shoreline and Bellevue annexed unincorporated islands with 1,200 and 260 residents respectively. Issaquah annexed neighborhoods north of the City with about 800 residents, but not until May 2000 after the deadline for reporting on page 66 was established.

A Decade of Population Change by Jurisdiction



Environmental Indicators

Water Consumption

Total consumption fell from 146 million gallons per day (mgd) in 1990 to 134 mgd in 1999. Per capita water consumption in King County at 104 gallons per person per day, reached its lowest level since 1993. It is 19 gallons less than in 1975. Local and regional education efforts, increasing numbers of new housing units with small lawns, and rising water prices have all had a significant impact on reducing water consumption. It has been observed in other regions that rising personal incomes is sometimes correlated with higher levels of residential water consumption. However, despite significant growth in personal income this past decade, this has not been the case in King County.

Energy Consumption

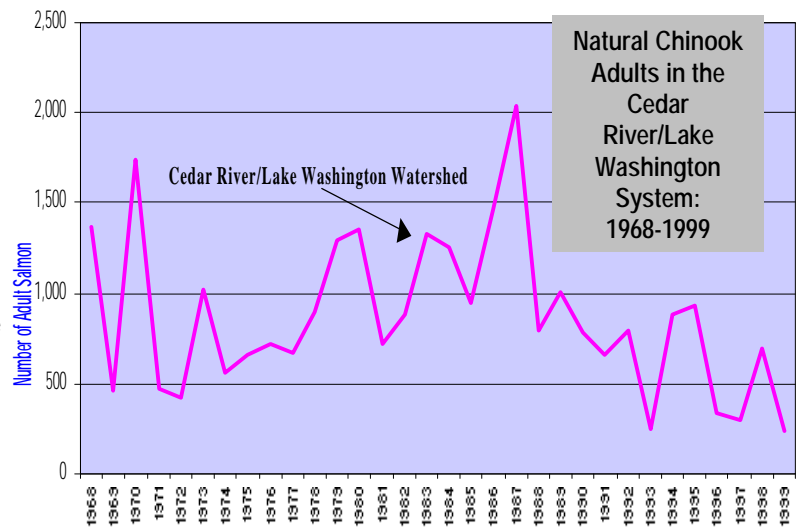
While the per capita increase in energy use has been modest, total consumption continues to grow and to outpace population increase. The trend from 1995 – 1999 has been toward an increasing per capita consumption of all types of energy, except for automotive gasoline. The apparent leveling off of per capita gasoline consumption is good news since gasoline represents about 40% of total per capita consumption, and has a strong impact on air quality. However, as long as total vehicle miles traveled, and per capita VMT, both continue to rise, air quality remains in danger, despite less gasoline consumption by County residents.

Recycling and Waste Generation

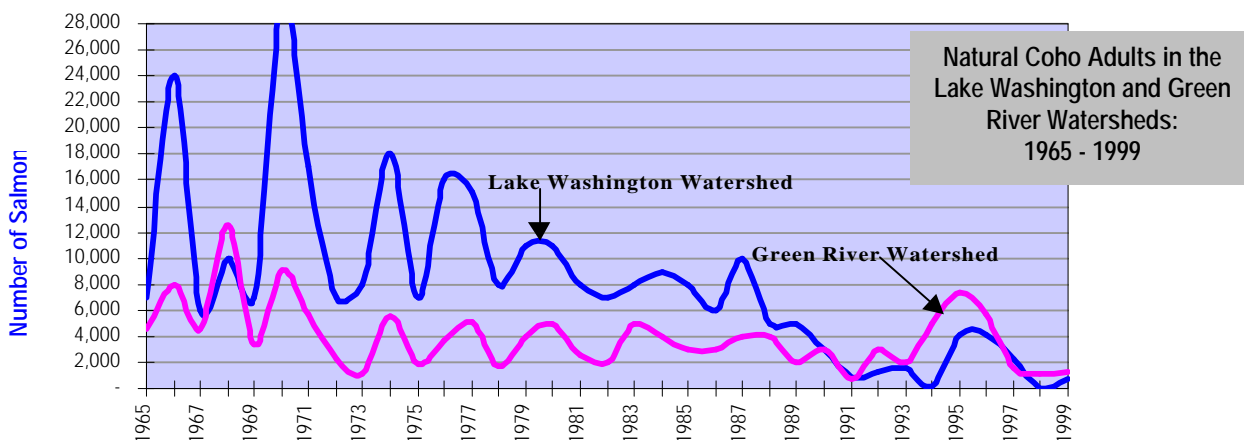
King County has made great strides in recycling, and is currently recycling more per capita (1,160 lbs. per person per year) than ever. However, the total amount of waste generated has also risen to a new high in 1999. This means that while we are recycling more, we are also creating more garbage per person. Each of us generated over 2,800 lbs of waste last year, of which 1,675 lbs. was not recycled, and thus had to be disposed of in other ways.

Decreasing Runs of Chinook Salmon

With the listing of Puget Sound Chinook salmon as a threatened species under the Endangered Species Act (ESA), monitoring the condition of salmon runs in King County has become more important than ever. The Puget Sound Basin provides habitat for a total of 209 salmon and steelhead stocks. In a 1992 assessment only about 44% of these stocks were considered healthy. The others were rated as depressed, critical, unknown, or extinct.



In 1999 there was a new low of just 240 returning adult Chinook in the Cedar River/ Lake Washington watershed. Even in undeveloped river systems, there are large natural fluctuations in salmon spawning and survival from year to year. These biological cycles are driven by changes in the conditions of freshwater and marine environments. However, an analysis of long term trends in the major watersheds of King County indicate that the decline in wild Chinook, Coho, and Sockeye stocks is considerably more long-lived than would be expected from natural fluctuations. For instance, through the 1970s and 1980s the number of returning Chinook adults in the Lake Washington basin fluctuated between a low of about 450 and a high of over 2000. However, 1993, 1996, 1997, and 1999 showed exceptionally low returns, in the range of 240-350 fish. The average size of runs in the 1990s are about one-half the average size of runs during the 1980s.



The number of Chinook in the Snoqualmie-Snohomish watershed showed a declining trend from the late 1970s through the mid-1990s. But in both 1998 and 1999 adult Chinook returned to the Snoqualmie-Snohomish watershed in their highest numbers – about 6,300 – since 1980.

A long-term downward trend is also evident among wild Coho adults which return to spawn in the Lake Washington system. In 1970, a high of 30,000 fish was recorded while a low of 200 was recorded in 1994. After three years of relatively good returns, there were less than 500 adult Coho that returned to the Lake Washington watershed in 1998, and only 733 in 1999.

Despite occasional rebounds, wild Sockeye in the Cedar River basin have shown a downward trend since 1989. The spectacular return of 400,000 or more Sockeye to Lake Washington in the summer of 2000, due to exceptionally good conditions for that cohort, camouflages the longer term trend toward a declining stock. About 300,000 of the adults returning in 2000 are expected to survive fisheries to spawn. However, in 1998 only 60,000 adults returned, and in 1999, only about 24,500.

It is difficult to determine the relative importance of each of the factors that influence the status of a particular salmon stock. There is little that can be done to affect the climatic conditions in the marine environment. Despite the natural fluctuations from year to year, many of the variations and declines in salmon populations that have been observed in the last several decades appear to be mainly the result of human impacts. In addition to the harvesting of wild salmon, habitat deterioration caused by urban and industrial growth, forest management practices, agricultural practices, municipal, industrial, and agricultural diversions, and hydropower have all contributed to diminishing the abundance and diversity of salmon.

Covering land with impermeable surfaces (e.g. building and paving) to accommodate residential, commercial and industrial growth decreases the filtration of storm and rainwater through the soil to groundwater, and increases the surface run-off to streams and lakes. The higher peaks and valleys in surface water flow can destroy spawning habitat, and cause flooding. Stormwater run-off can also carry pollutants such as automotive oil and fertilizers into surface water bodies. The cutting of shade trees, the loss of woody debris, and the creation of obstacles to the salmon's journey upstream, as well as other stream channel modifications and water diversions continue to reduce habitat quality for salmon and other aquatic life.

As a result of the listing of Puget Sound Chinook under the Endangered Species Act (ESA), a tri-county effort is now underway to find ways to improve conditions for salmon survival. A draft agreement between local jurisdictions and the federal government on policies to promote salmon recovery in this region (the "4-D Rule") is currently being reviewed. It will be implemented by January 2001, and may have a significant impact on land use planning in King County.